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About color

Affinity Designer can use different color models to represent different ways of describing color. These models (RGB, CMYK, Lab, and Gray) can be selected as you create your new document.

Color definitions are described comprehensively on the internet, so in this section we'll just focus on how to set a color model, the model's color space, and how a color profile represents that color space.

In terms of selecting color as you design, Affinity Designer provides the **Color** panel's HSL color wheel by default or optional sets of sliders. Furthermore, the Swatches panel can be used for easy access to preset and custom 'saved' colors that you'd like to use again.

If you're happy to leave color management until output is required, you can create new documents with the suggested default color format RGB/8 with sRGB IEC61966-2.1 color profile.

SEE ALSO:

[Color models](#)

[About color spaces](#)

[Color management](#)

[Selecting colors](#)

Color models

A screen uses varying amounts of light to create the colors that you see. In the physical world, inks are used to create the color on the page. Color is stored by turning colors into numbers. A color model is used to describe the numerical system used.

As not all devices have the same ability to display color, a color space is used to define the gamut (available range) of color. By working within a color space suitable for the intended output device, you can be confident that your colors will be able to be displayed as intended.

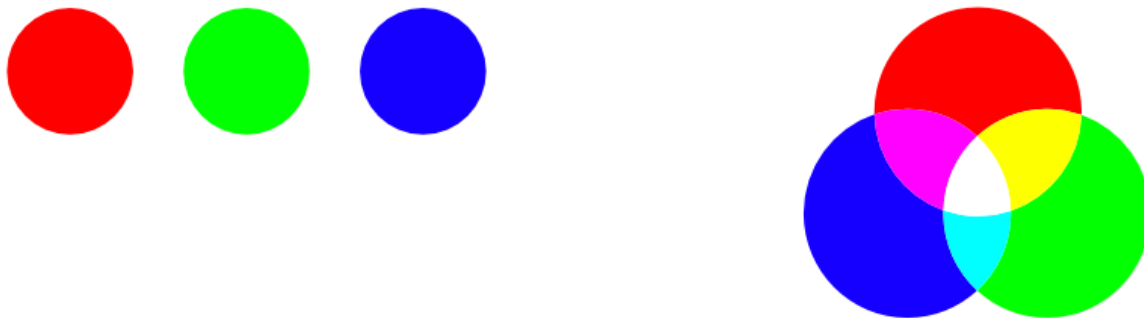
In Affinity Designer, you can take advantage of an end-to-end CMYK or Lab color-managed workflow as you create a new document.

About color models

Different color models represent color as numbers in different ways. When working in Affinity Designer, you can choose one of four color models.

RGB model

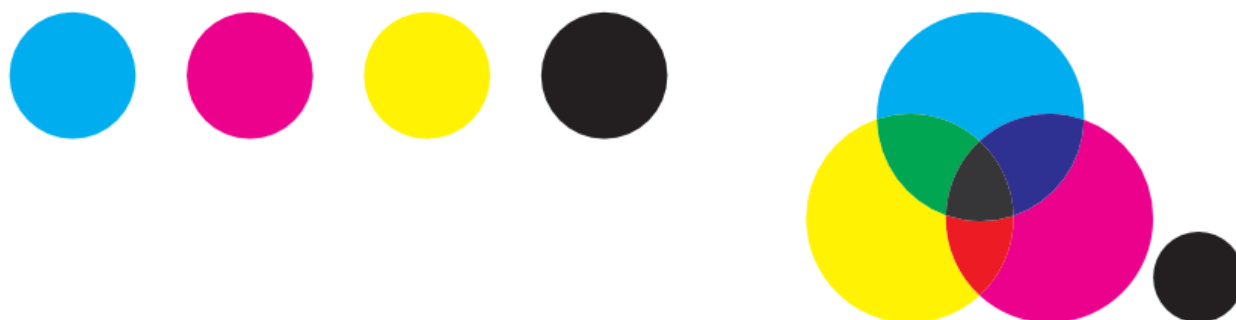
The RGB model is an additive color model. The primary colors of light, Red, Green and Blue, are combined in various degrees to make other colors in the spectrum.



A representation of the RGB color model. This model is universal within digital cameras and electronic displays.

CMYK model

The CMYK model is a subtractive model. Cyan, Magenta and Yellow are combined to make each color. A fourth ink, Black, is also used for extra control and can be used either on its own for a true black, or combined with the other inks for a rich black.

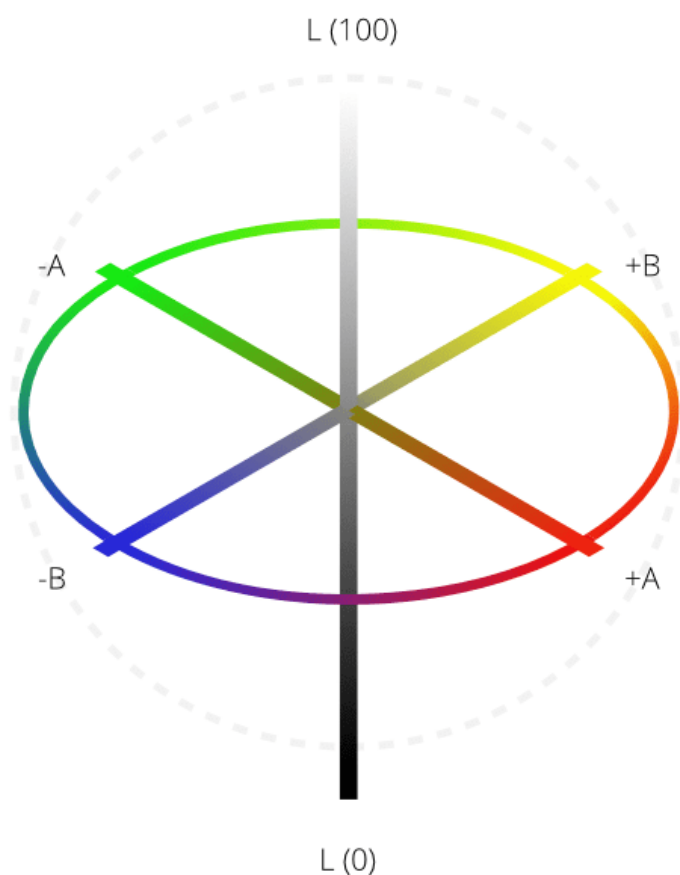


A representation of the CMYK color model. When the three colors combined they make black. Black is also added as a separate color for extra tonal control.

 The way that the color model is implemented is defined by the [color space](#) that is chosen; this is possible by selecting a color profile.

Lab

Lab color represents the theoretical range of human vision using three channels: Lightness (L), and two color channels of opposing values of 'red - green' (a) and 'yellow - blue' (b). It can be very useful when used creatively, especially as Lightness can be adjusted without any change to hue or saturation.



A representation of the Lab color opposition model. Lightness (L) is controlled separately to the two color channels (a, b).

▼ To select a new document's color model:

- As you create a [new document](#), select a color format and profile from the **Color** tab.

 The **Color Format** of a document is a combination of a color model and a bit depth setting (8 or 16).

▼ To change your document's color model at any time:

1. From the **File** menu, select **Document Setup** and choose the **Color** tab.
2. From the **Color Format** pop-up menu, select any of the available models as described above.
3. Designer converts each color from the old format to the new one—color/pixel values may change as a result.

SEE ALSO:

[About color spaces](#)

[Color management](#)

[About bit depth](#)

Color spaces

Your color space dictates the range of colors that are available to your screen or other output device.

About color space

Each output device, for example, your display or printer, is only capable of producing a certain range of colors. A color space is a specific implementation of the color model used to define the color gamut (i.e., the range of available color). For example, Adobe RGB, sRGB, etc, are all unique color spaces for the RGB color model. Different color spaces are also available for CMYK and Lab color models.

In order for a device to know which color space to use, it looks at the assigned color profile. You can choose your color space by assigning a [color profile](#) to your document.

Which color space should I use?

Which color space you choose depends on what you're doing and the color model you're choosing to operate in.

If you're unsure of what color space to operate, it's advisable to stick with the default sRGB IEC61966-2.1 profile if using the RGB color model.

 If you need to use a color space that is not available in Affinity Designer, it will have to be installed on your system. Devices can install color profiles for you. Consult your system's color management documentation for instructions.

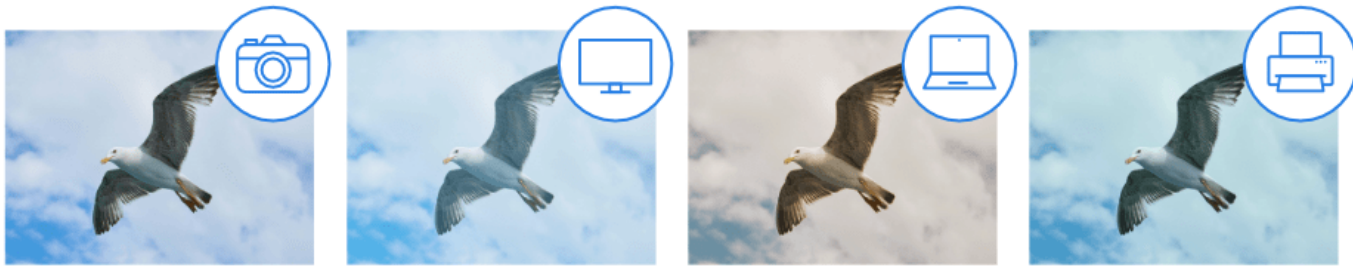
SEE ALSO:

[About color models](#)

[Color management](#)

Color management

The color and tonal information in a digital document is stored as numbers. When we share these documents between devices, the device has to work out how to display the color. As not all devices can display the same color gamut it can lead to colors looking different on each device.



Documents without color profiles (or with unsupported color profiles) may not look the same across each device.

To ensure that the color looks the same on each device, we use color profiles to tell the device how to display or render the color information.



Documents with the correct profile for a calibrated device should closely match.

In Affinity Designer, an opened file's color profile is honored by default. You have the option to convert it to the current working color space. When placing images into an existing document, the image's embedded color profile will always be converted to the document's current working space.

On export, you can choose to embed the document's or a named color profile to ensure accurate color management. Alternatively, the exported file can be unprofiled by not embedding the document or named profile.

Assigning color profiles

Affinity Designer lets you choose global default color profiles, assign a color profile as you create a document, or at any point during your session.

✎ Most commercial printers will accept sRGB as they'll be able to do their own profiling at the print stage to get the best results for your work.
For the CMYK color model, it's best to consult your print partner for an appropriate CMYK color profile recommendation.

▼ To select default global color profiles:

1. From **Edit>Settings** (Color option), select an RGB, CMYK, Grayscale or LAB color profile from the pop-up menus.

2. Choose a **Rendering intent** option and check **Black Point compensation**.

 The chosen profile will be used as the current working space and will be offered when creating new documents, or will be used if you choose to convert an opened file's color space (discarding its own color profile).

▼ To select a new document's color profile:

- As you create a [new document](#), select an option from the **Color Profile** pop-up menu.

▼ To convert the color space of file to be opened to the current working space:

- Prior to opening the file, from **Edit>Settings** (Color option), check the **Convert opened files to working space** option.

Options exist to warn that a file's working space will be converted, or that an unprofiled file will be assigned the current working space's profile.

▼ To change your document's color profile at any time:

1. From the **File** menu, select **Document Setup**.
2. From the dialog:
 - Select the **Color** tab.
 - From the **Color Profile** pop-up menu, select a profile.
 - Select **Assign** or **Convert**.
Assign adopts the new profile but leaves the values of the colors/pixels as is. **Convert** converts each color from the old profile to the new one—color/pixel values may change as a result.
 - Click **OK**.

 Common color profiles used in design include sRGB IEC61966-2.1 and Adobe RGB 1998, the former for on-screen display.

▼ To embed a color profile on file export:

1. With Export Persona active, choose your **Preset** in the Export Options panel.
2. (Optional) Select a different **ICC profile** from the pop-up menu. Otherwise, the document's color profile will be embedded.
3. Check **Embed ICC profile**.

 You can also embed an ICC profile via **File>Export** (click **More>** in the dialog).

About soft proofing

Soft proofing simulates output as you design with respect to the color profile and the paper medium you intend to print on.

In Affinity Designer, this can be done by applying a **Soft Proof** adjustment to your design. You can then preview how your output will appear, preventing any nasty surprises at print time.

Because soft proofing is applied as an adjustment you can apply multiple adjustments, and therefore produce soft proofs for multiple output devices.

As an example, if you want to create several different output types, you might want to start with a color profile on document creation with a wide gamut (e.g., Adobe RGB 1998), and then change the profile to match the output destination. However, color information may be thrown away if changing to a smaller color gamut—simply changing back to a profile with a wider gamut will

not restore the additional color information. By applying a soft proof adjustment you prevent this, allowing you to work in a wider gamut until you are ready to change to your chosen output profile.

Installing ICC color profiles

Affinity Designer detects and can use ICC color profiles installed on your operating system when exporting files. No special steps have to be taken in the app to make profiles available for its use when exporting files; installed profiles are available from the ICC profile pop-up menu of the Export dialog.

Your operating system includes software to assign an installed profile to your printer.

▼ To install a color profile:

1. Open the **Color Management** control panel.
2. Select the **All Profiles** tab.
3. Select **Add**.
4. Browse to the .icc file and select **Add**.

▼ To assign an installed color profile with your printer:

1. Open the **Color Management** control panel.
2. Select the **Devices** tab.
3. Select the device with which to associate the profile.
4. Select **Use my settings for this device**.
5. Select **Add**, then the profile you want to use for this device, then **OK**.
6. (Optional) To make the profile the default for this device, select it and then **Set as Default Profile**.

SEE ALSO:

[Create new documents](#)

[Export Options panel](#)

[Export](#)

[Soft proof adjustment](#)

[Color models](#)

Using OpenColorIO

In addition to 32-bit editing support, Affinity Designer also implements OpenColorIO; a color management system that provides a full color-managed workflow. It is predominantly used for motion picture production but can be used for any situation where accurate end-to-end color management is required. All Affinity apps support both OCIO v1 and v2 color management configurations.

Setting up OpenColorIO

By default, Designer's OpenColorIO features are not immediately usable. An **.ocio** configuration file is required alongside a number of supporting files such as lookup tables.

The OpenColorIO website (<http://www.opencolorio.org>) contains some sample configurations that provide a number of suitable input and output profiles, including several Academy Color (ACES) configurations.

▼ To configure OpenColorIO:

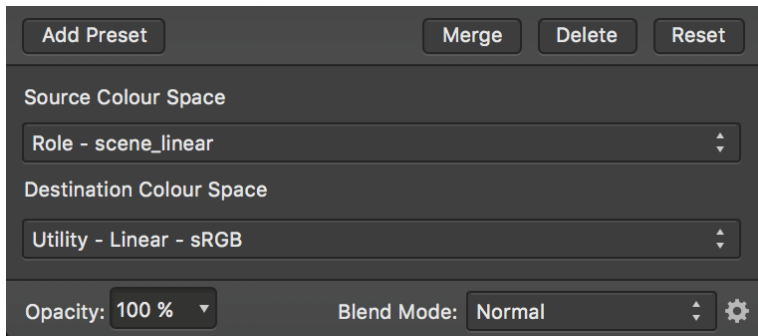
1. Download and extract (**.ocio** v1 only) your chosen OpenColorIO configuration to a folder.
2. From the **Edit** menu, select **Settings**.
3. On the **Color** tab, under **OpenColorIO Configuration File**, choose **Select** and navigate to the **.ocio** file destination folder. Choose the **.ocio** configuration file within this folder.
4. You will be prompted to restart the app, which is necessary for the OpenColorIO settings to take effect.

Using OpenColorIO

OpenColorIO is exposed through two methods:

- The **32-bit Preview** panel contains a **Display Transform** option that only becomes available with a valid OpenColorIO configuration. This can be used to achieve a non-destructive, color managed workflow. See [32-bit Preview](#) for more information.
- An **OCIO** adjustment layer (see [OCIO Adjustment](#)) can be added to losslessly convert between color spaces. You can have multiple **OCIO** adjustment layers within a document, which allows you to accommodate composite layers from different color spaces. An example layer stack might be (in hierarchical order):

- **OCIO Adjustment**—from *Utility - Linear - sRGB* back to *Role - scene_linear*
- **sRGB Pixel Layer**—composite element
- **OCIO Adjustment**—from *Role - scene_linear* to *Utility - Linear - sRGB*
- **Pixel Layer**—original layer



An OCIO Adjustment layer going from *Role - scene_linear* to *Utility - Linear - sRGB*.

✎ When loading OpenEXR documents, Designer always converts from the source color space to **scene_linear**. With a valid OpenColorIO configuration, Designer will also present a message to let you know which color profile it has converted from. This is usually determined by a filename affix, for example "**render_acescg.exr**".

SEE ALSO:

[32-bit Preview](#)

[OCIO Adjustment](#)

Selecting colors

Affinity Designer offers several ways of choosing colors for your design.

About selecting colors

An essential requirement for efficient design is the ability to access colors easily and intuitively. Designers may have a preferred method for color selection, so Affinity Designer provides a choice:

- Context toolbar—for selection of Fill and/or Stroke colors from the context toolbar that displays when a vector object is selected.
- Color panel—for selection from color wheel, sliders, or boxes using different color models.
- Swatches panel—for selection by swatch from different preset or custom categories, including PANTONE® Colors.
- **Color Picker Tool**—for [sampling colors](#) anywhere on your screen; great for complementary color work.
- Gradient Tool—apply or edit a color gradient across your object. Choose from the tool's context toolbar.

Using the object's context toolbar:

For quick access, Fill and Stroke swatches are available from the context toolbar of any selected shape, line, or stroke.

▼ To apply a fill or stroke color to a vector object:

1. Select the object.
2. From the context toolbar, click either the 'Stroke' or 'Fill' swatch.
3. From the pop-up menu, choose color from a **Swatches**, **Color**, or **Gradient** pane.

 Using the Color pane, you have the option of selecting color using an HSL Color Wheel by default; RGB, RGB Hex, HSL, CMYK, Lab, Grayscale sliders; in 8 bit, 16 bit or percentage modes where applicable; or independent Hue, Saturation, or Lightness boxes.

Using the Color panel

With the **Color** panel, colors can be applied to an object or adopted by a tool in just a few clicks. Opacity and noise are further color attributes which can be applied. Colors can be saved to a palette in the Swatches panel.

▼ To select a stroke/fill color (using default HSL Color Wheel):

1. Click the Stroke or Fill swatch at the top left of the panel.
2. Click for a hue on the outer ring.
3. Click in the inner triangle to set the combined Saturation and Lightness.

The relevant swatch updates to the selected color.

 Click a **None** swatch to make the color completely transparent.

 Click  Panel Preferences menu on the **Color** panel to select color via RGB, HSL, CMYK, LAB, or Grayscale sliders; in 8 bit, 16 bit or percentage modes where applicable; or use Hue, Saturation, or Lightness boxes.

▼ To switch colors between the swatch selectors:

- Click the double-headed arrow. The colors switch (but the active swatch selector remains the same).

▼ To adjust opacity or noise setting:

1. Select the **Switch to opacity/noise** toggle button at the bottom-left of the panel.
2. Drag the slider to set the value.

▼ To use a different color model:

1. Click the Panel Preferences menu, and select **Sliders** from the menu.
2. At the top right of the panel, click the current color mode displayed, e.g. RGB, to reveal a pop-up menu.
3. Select a different color model from the menu.

▼ To apply a color tint:

1. Click the Panel Preferences menu, and select **Tint** from the menu.
2. Drag the slider to the left or right to increase or decrease the color tint, respectively.

▼ To use a different color mode:

- Click the Panel Preferences menu, and select **8 bit**, **16 bit** or **Percentage** from the menu.

▼ To save colors to Swatches panel:

- Click the Panel Preferences menu, and select one of the following:
 - **Add Color to Swatch**—adds the current color to the currently loaded palette in the Swatches panel.
 - Select a chord type from the **Add Chord to Swatch** pop-up menu—adds a chord of the current color to the currently loaded palette in the Swatches panel.

Using the Swatches panel

The Swatches panel provides color swatch presets that are selectable from various categories. You can easily apply grays, solid colors, or gradient colors as presets.

▼ To use a color swatch:

Do one of the following:

- Choose a palette category from the category pop-up menu and click a color swatch in the palette.
- Click a swatch from the **Recently used** swatches.
- Click a **None** swatch to make the color completely transparent.

Accessing PANTONE® Colors

PANTONE® Color palettes are available from the main Swatches panel, and will automatically become a global spot color in the document palette when applied. They are also available from the pop-up Swatches panel on the context toolbar when a shape, line, or stroke is selected.

▼ To access PANTONE® Colors:

1. On the **Swatches** panel (or pop-up Swatches panel), from the category pop-up menu, select your preferred PANTONE palette.
2. To display the PANTONE® Color name and number, click on the **Swatches** panel's **Panel Preferences** menu and select **Appearance > Show as List**. Alternatively, you can select a category from the **Swatches** panel (for example, PANTONE® Formula Guide Solid Coated V4) and use the search window to locate a specific color (e.g., 129) within that category.

Registration color

Printing to PDF will allow you to include printer marks, including registration marks assigned with registration black (100%C:100%M:100%Y:100%K). Registration black will appear on any PANTONE or additional spot colors added. You can add this registration color as a swatch that can be assigned to an object on the page, creating an on-page registration mark.

▼ To add a registration color as a swatch:

- From the Swatches panel, click **Panel Preferences**, then select **Add Registration Color**.

You can then apply the swatch to an object on the page.

SEE ALSO:

[Sampling colors](#)

[Color chords](#)

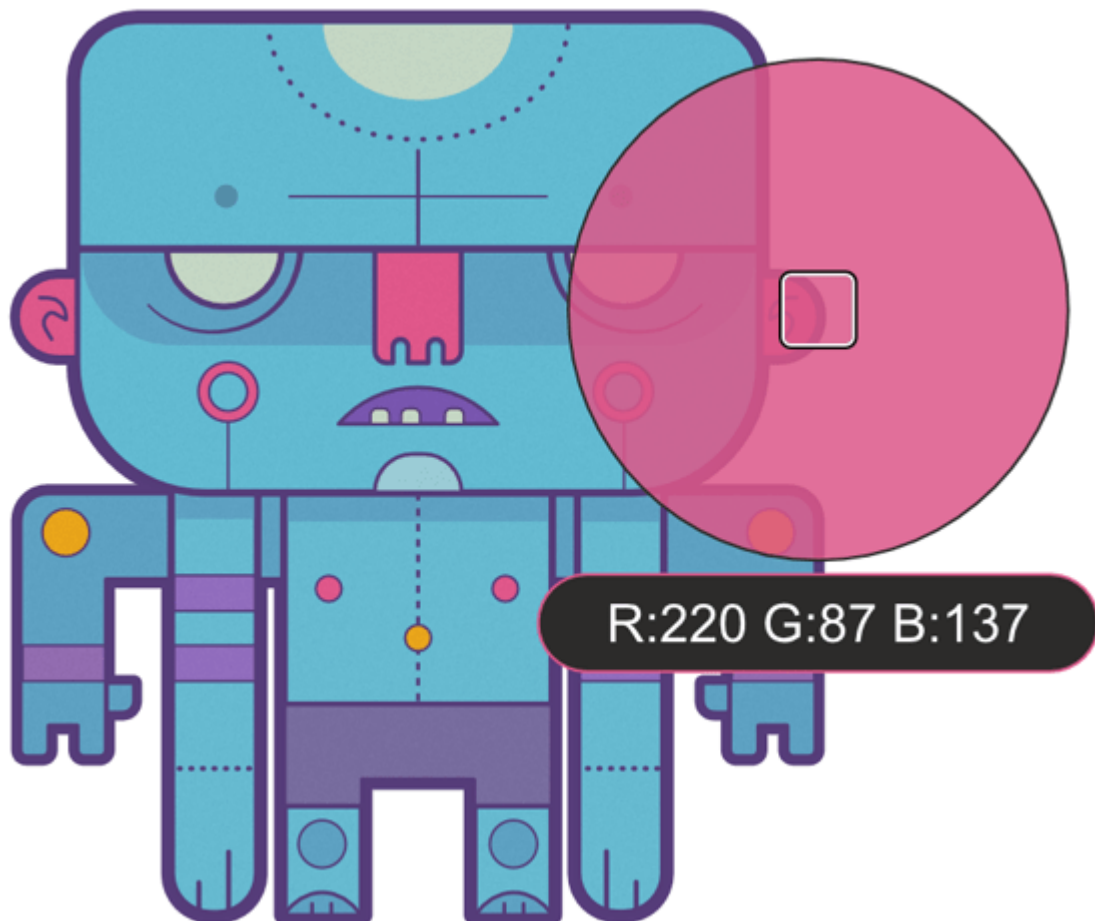
[Color models](#)

[Swatches panel](#)

[Color Picker Tool](#)

Sampling colors

The act of color picking lets you sample colors within or outside Affinity Designer, then use them throughout your design.



About sampling colors

Color sampling appears in two slightly different forms within Affinity Designer. It exists as a 'component' of selected panels as well as a standalone tool.

Both versions function in slightly different ways:

- A color picker appears on the **Color** and **Swatches** panels (and other color-related pop-up panels) in Designer and Pixel Persona.
- The standalone **Color Picker Tool** appears on the **Tools** panel in Designer Persona only.

Regardless of which you use, a sampled color is stored and applied from the swatch next to the color picker's icon on the **Color** or **Swatches** panel.



Screen recording permission

The first time you sample color, your operating system may ask whether to grant permission for your Affinity app to record the screen. If you deny it, you can still sample from the app's windows but not other screen areas. Refer to your operating system's documentation if you need to grant permission at a later time.



To use the Color Picker Tool:

1. On the **Tools** panel, select the **Color Picker Tool**.
2. Adjust the settings on the context toolbar.
3. Do one of the following:
 - (For on-page sampling) Click to pick up any color on the page.
 - (For screen-wide 'magnified' sampling) Drag to select any color under a magnifier anywhere within or outside the app.



If **Apply to Selection** is enabled, the sampled color is applied to any currently selected object.



To use a panel's color picker:

1. (Optional) Select an object to adopt the picked color on picking.
2. Click the selector you want to apply the color to.
3. Drag the **Color Picker** to the color you want to sample.



Once loaded, the sampled color in the **Color Picker** swatch can be applied to any subsequently selected object by clicking the swatch.



Modifier(s)

With brush, shape, pencil and gradient tools, you can sample color by dragging with the **Alt** key pressed.

SEE ALSO:

[Color Picker Tool](#)

Global colors

Global colors can be created and applied to different objects in your design. If you want to change the color across your design at a later time, you can simply edit the global color in the Swatches panel and all objects update with the new color automatically and simultaneously.



About global colors

The global color could be applied as a solid fill, stroke, or a color used in a gradient fill; gradients cannot be saved as global colors as they are made up of more than one color. Global colors can be made while in RGB, CMYK, HSL, LAB, Grayscale, or Tint color modes.

Global colors are added to the currently selected document palette in the Swatches panel. If a document palette does not exist when your document's first global color is created, a new document palette is automatically created for you in which the color will be stored. Once created, you can apply the global color to your design.

The tint of an applied global color can be adjusted using the **Color** panel.



A global color is indicated by a tab in the bottom-left corner of its color swatch.



You can check if a global color has been assigned to an object's stroke or fill by using the **Color** panel.



If you're [importing a document palette](#) containing global colors as an Application palette, the global colors will be converted to standard colors.

▼ To create a global color from an existing object:

Do one of the following:

- Select the object, choose a Document palette in the **Swatches** panel, set the Stroke/Fill color selector, then click **Add current color to palette as a global color**.

- **Right-click** the object and select **Add to Swatches**, then **From Fill as Global**, **From Line as Global** or **From Both as Global** depending on the object property you want to save.

▼ **To create a global color from scratch:**

1. On the **Swatches** panel, select a Document palette from the palette pop-up menu. If no Document palette exists you can create one from the panel's Panel Preferences menu.
2. From **Panel Preferences**, select **Add Global Color**.
3. Adjust the settings in the dialog.
4. Click **Add**.

▼ **To edit a global color:**

1. On the Swatches panel, **Right-click** the chosen color swatch and select **Edit Fill**.
2. From the dialog, select a color.

All objects using the global color will be updated automatically.

SEE ALSO:

[Overprinting](#)

[Spot colors](#)

Spot colors

When you create [global colors](#) from scratch, you can set these to be spot colors.

About spot colors

In professional printing, spot colors can be used instead of CMYK process colors when your artwork contains a very limited color set. By setting these colors to be spot colors, print costs can be reduced significantly. You may also be able to accurately reproduce colors otherwise impossible with process colors.

As well as setting a global color to be a spot color, you can use pre-supplied PANTONE® colors, which will automatically become a global spot color in the **Swatches** panel's document palette when applied.

  A spot color is indicated by a small dot in the bottom-right corner of its color swatch.

 You can check if a spot color has been assigned to an object's stroke or fill by using the **Color** panel.

 When publishing to PDF, the **Honor spot colors** option in the Export Options panel (Export Persona selected) lets you include spot colors in your output. You can also make the spot colors overprint in the same panel.

 In advance of using this feature, consult your print provider for advice on their use.

▼ To create a spot color:

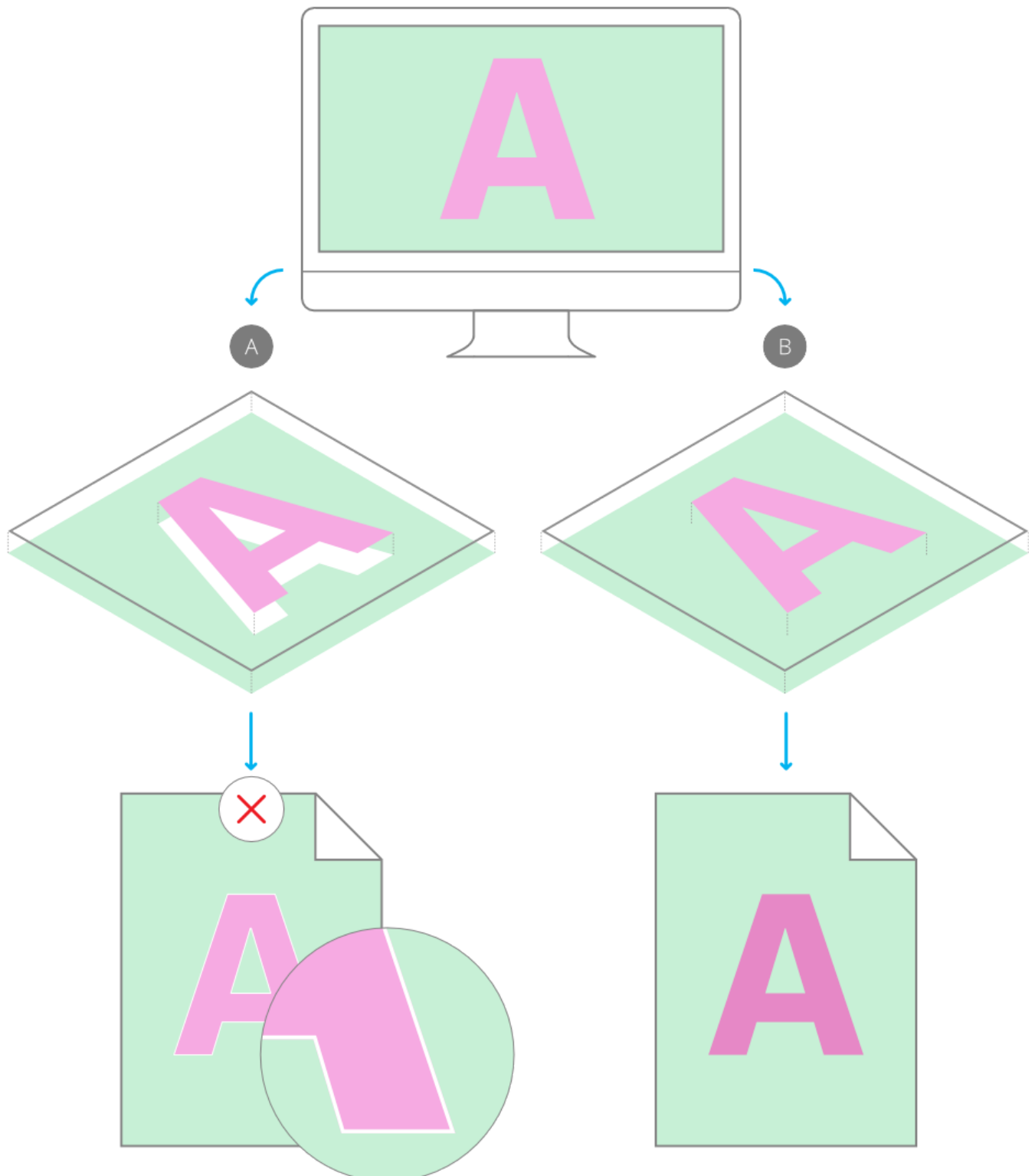
1. On the **Swatches** panel, select a Document palette from the palette pop-up menu. If no Document palette exists you can create one from the panel's Panel Preferences menu.
2. From **Panel Preferences**, select **Add Global Color**.
3. Adjust the settings in the dialog.
4. Select the **Spot** option.
5. Click **Add**.

Overprinting

For professional printing, [global colors](#) can be made to overprint. By applying an overprint color to objects selectively you can control overprinting.

About overprinting

Overprinting means that you can print one ink color on top of another instead of, by default, the underlying color being 'knocked out' (removed). This prevents unwanted fringing being left around objects, e.g. text.



(A) Unwanted knockout behavior (default) showing white fringing vs. (B) overprinting.

As a professional printing feature, overprint works when publishing PDFs using a CMYK color space and PDF/X compatibility.

You don't need to explicitly make an overprint for black, for black text or black graphics, as this is set by default. On PDF publishing, you can control black overprinting using the **Overprint black** option in the Export Options panel (for any PDF export options).



An overprint color swatch is indicated by a curved tab in the top-right corner of its color swatch.



You can check if an overprint color has been assigned to an object's stroke or fill by using the **Color** panel.



Overprinting it will cause colors to appear darker due to the opacity of inks used in professional printing. Some PDF viewers can simulate how this would appear, but always consult with your print provider for advice on its use.

▼ To create an overprint color from scratch:

1. On the **Swatches** panel, select a Document palette from the palette pop-up menu. If no Document palette exists you can create one from the panel's Panel Preferences menu.
2. From **Panel Preferences**, select **Add Global Color**.
3. Adjust the settings in the dialog.
4. Select the **Overprint** option.
5. Click **Add**.

▼ To make an existing global color overprint:

- On the **Swatches** panel, **Right-click** the global color swatch's thumbnail, then select **Overprint**.

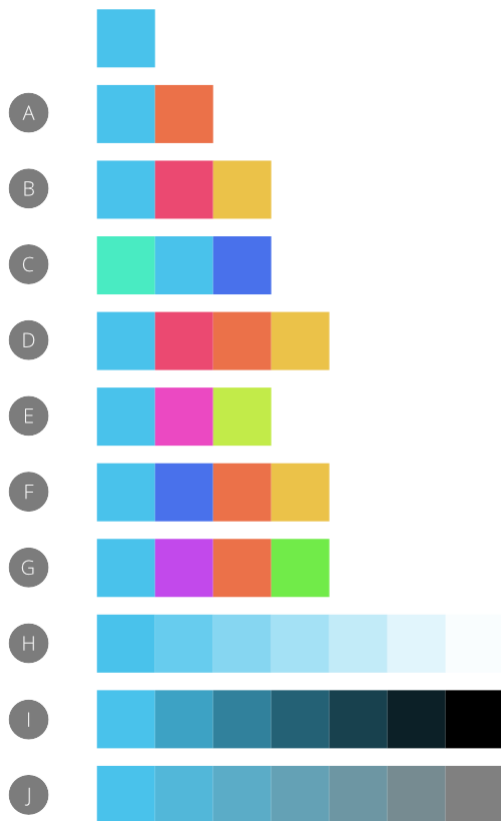
SEE ALSO:

[Global colors](#)

[Spot colors](#)

Color chords

A color chord is a spread of harmonious colors which can be used in conjunction with each other to produce appealing designs.



Example color chords created by applying different chord types to the base color in the top row.

About color chords

Color chords are created by first choosing a base color and then picking a chord type (built on professional color theory). A spread of colors is then populated and stored in the current palette in the **Swatches** panel. You can then select from these colors as you design.

Chord types are based on the HSL color wheel and include:

- (A) **Complementary**—the base color and its opposite on the color wheel.
- (B) **Split Complementary**—the base color and the colors adjacent to its opposite on the color wheel.
- (C) **Analogous**—the base color and the colors adjacent to it on the color wheel.
- (D) **Accented Analogic**—as for Analogous but, like Complementary, also includes the base color's opposite.

- (E) **Triadic**—three colors spaced equally around the color wheel starting from the base color.
- (F) **Tetradic**—four colors arranged around the color wheel in two complementary color pairs, starting from the base color. Otherwise known as 'Rectangle'.
- (G) **Square**—four colors spaced equally around the color wheel starting from the base color.
- (H) **Tints**—colors which vary in lightness from the base color to white.
- (I) **Shades**—colors which vary in lightness from the base color to black.
- (J) **Tones**—colors which vary in saturation from the base color to gray.



You'll find a wide range of color theory websites on the Internet.

▼ To create a color chord using the Swatches panel:

1. From the category list pop-up menu, select a palette containing the base color.
2. From the palette, **Right**-click the base color swatch and then select a chord type from the **Create Color Chord** pop-up menu.

▼ To create a color chord using the Color panel:

1. (Optional) On the **Swatches** panel, click Panel Preferences and choose an 'Add Palette' option.
2. Do one of the following:
 - With no content selected, select a color from the color model's **Wheel** (HSL only), **Sliders**, or **Boxes**, or click the picked color swatch.
 - Select page content containing the base color. Remember to select the appropriate color selector on the **Color** or **Swatches** panel.
3. On the **Color** panel, click the Panel Preferences menu and select a chord type from the **Add Chord to Swatch** pop-up menu.

SEE ALSO:

[Selecting colors](#)

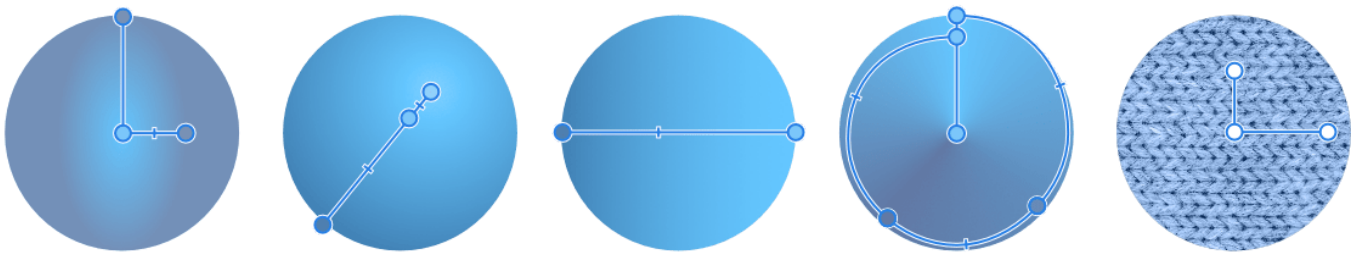
[Color panel](#)

[Swatches panel](#)

Gradient and bitmap fills

The **Gradient Tool** lets you draw a simple color gradient, solid or bitmap fill across your object. The created fill path can be edited directly on the object to introduce more than two colors along the gradient path, introduce opacity, reposition added colors or control color transitions. You can also apply a more complex gradient via a Gradient Editor.

✎ If needed, you can precisely define the fill path via the color swatch on the tool's context toolbar. This should be done with no handles selected.



(From left to right) Elliptical, Radial, Linear, Conical, and Bitmap fill types applied to a basic shape.

✎ You can also apply a gradient to pixel layers, adjustment layers and layer masks using the Gradient Tool.

▼ To apply a gradient:

1. Select an object.
2. Select the **Gradient Tool** from the Tools panel.
3. From the context toolbar, select either 'Stroke' or 'Fill' from the **Context** pop-up menu.
4. From the context toolbar, select a fill type from the **Type** pop-up menu.
5. Drag the cursor across the object's stroke or fill depending on what you selected previously.

💡 Select and drag an end stop on the path to change the length and direction of the path. End stops can be recolored and be given reduced opacity from the **Color** panel.

💡 Create your own gradient fills by clicking the color swatch, adjacent to the Type pop-up menu, on the context toolbar.

✎ You can pick up color as you design by holding the **Alt** key and dragging.

▼ To create a bitmap fill:

1. Use the **Move Tool** to select an object.
2. Select the **Gradient Tool**.
3. Do one of the following:
 - From your Explorer window, drag the file of choice and drop it onto either the **Swatches** panel, **Color** panel or the Foreground/Background color selector.

- From the **Assets** panel, click an asset, e.g. a texture, shape or other.
- From the **Stock** panel, click one of the photos from your search results.

4. Use the context toolbar settings and the tool's nodes to modify the fill as required.

 Alternatively, with the **Gradient Tool**, you can select **Bitmap** from the **Type** pop-up menu on the context toolbar, then navigate to the image you will use to fill.

 Instead of using the **Gradient Tool**, you can also create a bitmap fill using the **Move Tool**. To do so, drag the file of choice from your Explorer window and drop it onto the areas suggested above.

▼ To modify a bitmap fill:

1. With the **Gradient Tool** active, make a selection.
2. On the context toolbar, click **Rotate gradient** to change the orientation of the fill at 90° clockwise intervals.
3. Enable **Maintain aspect ratio** to ensure the bitmap fill is not stretched or squashed when edited.
4. Set the **Extend** and **Quality** options as desired. The former option controls how the tile that makes up the bitmap is presented; the latter how the bitmap fill is resampled on object resize.
5. Check **Scale with object** to allow for stretching or shrinking of the bitmap fill while resizing. Leave it unchecked to ensure stretching or shrinking isn't taking place thus preserving the texture of the image.

▼ To modify a gradient (directly on an object):

With the **Gradient Tool** selected, click an object with a gradient fill applied and then do any of the following:

- Click on the gradient path to add a stop.
- Click a stop to select it. Selected stops display larger than other stops.
- Drag a stop to reposition it along the gradient path. End stops can be repositioned (by dragging) to extend or contract the gradient's length; the angle of the gradient can also be changed by dragging.
- Drag a midpoint marker to adjust the spread of colors between two color stops.
- Apply a color (or opacity or noise value) to a selected stop from the **Color** panel.
- Delete a selected stop by pressing **Backspace** key.

 When you scale or shear an object with a linear or radial gradient applied, the gradient will intelligently reapply itself to fit the modified object's new proportions.

▼ To modify a gradient (via the tool's context toolbar):

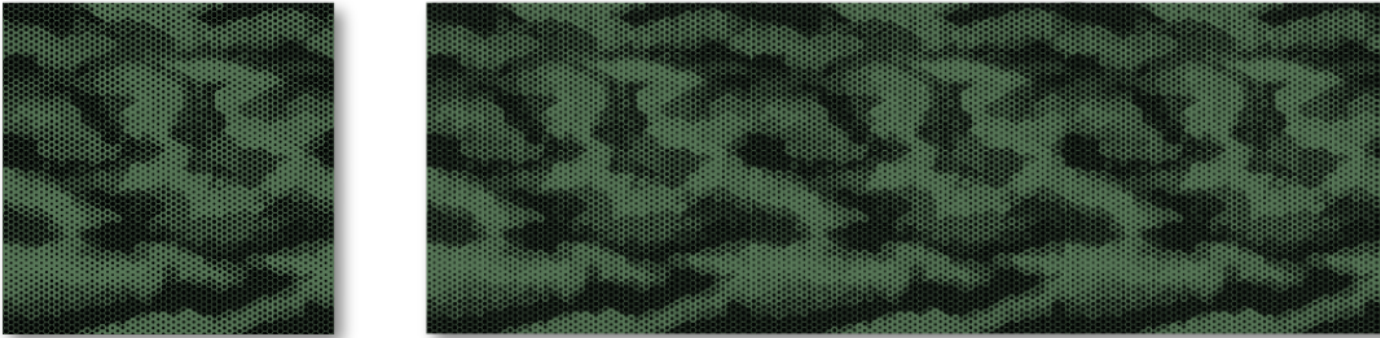
1. With the **Gradient Tool** selected, click an object.
2. Deselect any selected stops.
3. From the context toolbar, select the color swatch.
4. Click the **Gradient** option which lets you modify your gradient using the following settings:
 - **Type**—determines the gradient type (linear, elliptical, etc.) via a pop-up menu.
 - **Position**—controls the position of the stop along the gradient from left (0%) to right (100%), with 50% representing the central point.
 - **Mid Point**—adjusts the spread of colors between the selected color stop and the stop to its right.
 - **Color**—click the color swatch to display a pop-up panel where you can modify the selected stop's color (including noise value).
 - **Opacity**—controls how see-through the stop is. 100% represents fully opaque, 0% represents fully transparent.
 - **Insert**—adds a new stop between a selected stop and the stop to its right. The stop adopts the color at its new position.

- **Copy**—duplicates the selected stop, positioning it between the selected stop and the stop to its right.
- **Delete**—removes the selected stop from the gradient.
- **Reverse**—the gradient is reversed, i.e. like a mirror image.

Scaling

Scaling bitmap fills

It is possible to rescale a bitmap fill by either restricting or allowing for the bitmap fill to grow or shrink when transforming, depending on the desired effect. One benefit here is that it is possible to leave the bitmap image and its texture unaffected by shrinking or stretching.



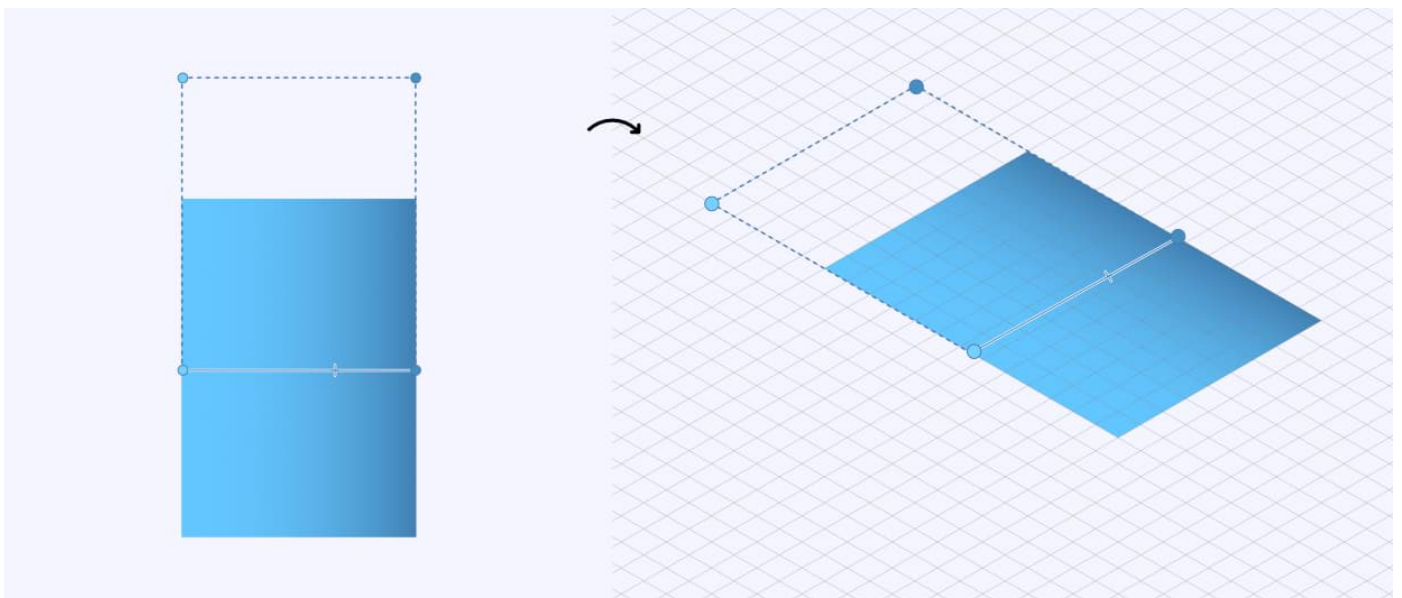
A bitmap fill's texture unaffected by stretching a square object.

 With an object selected when creating a bitmap fill, the image will be placed as a tiled or repeating pattern in the object.

Transforming objects with linear or radial gradient fills

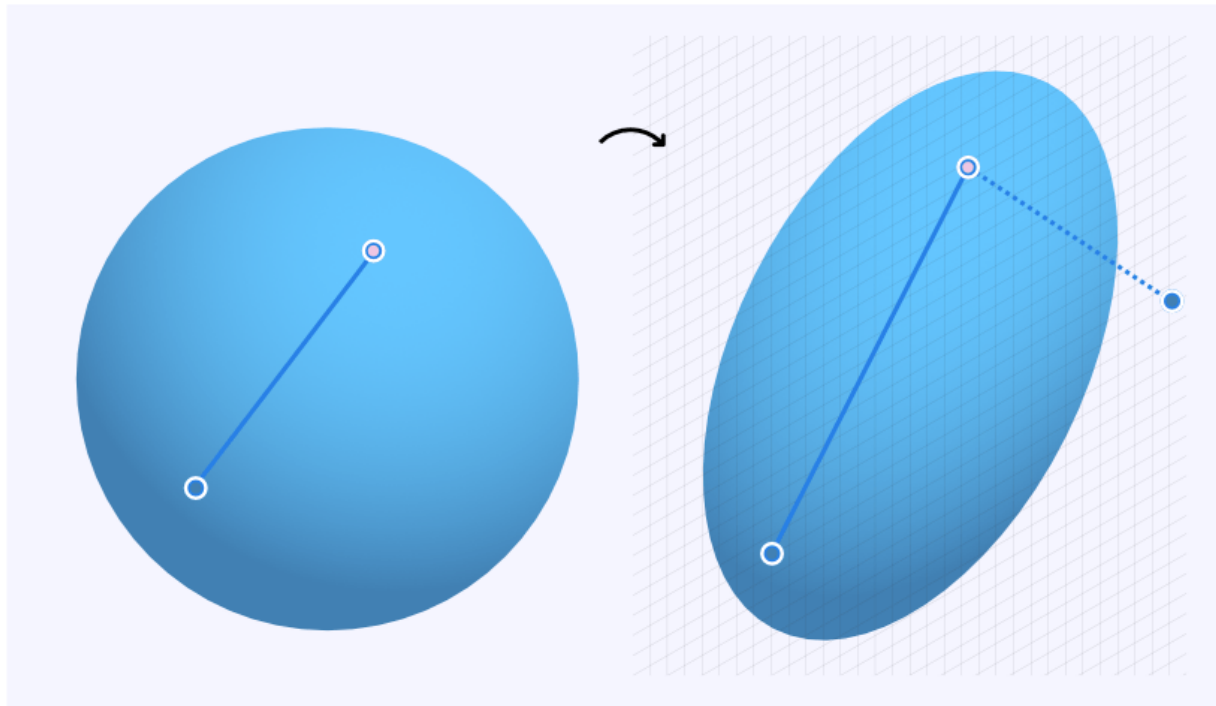
When you scale or shear an object with a linear, radial or conical gradient applied, the gradient will automatically reapply itself to fit the modified object's new shape. For shearing, dashed correction paths are applied to the gradient to indicate the gradient transformation.

The paths can be edited to control the shear and scale on the fill if needed—the path and stop can also be removed to ignore the gradient transform if needed.



Unsheared and sheared rectangle (the latter showing correction paths)

This is also important when transforming two-dimensional objects onto an isometric grid plane as the gradient also needs to be intelligently transformed onto the plane, along with the shape's outline. On the transformed object, a dashed correction path is automatically applied as before.



Circle with radial fill transformed onto an isometric plane (Front Plane), showing a single correction path.

▼ To convert the transformed fill to a conventional gradient fill:

- Double-click the correction end stop to remove the correction path.



Modifier keys

When using the tool, the following modifiers can be used:

- Double-click a stop to reset the fill back to be true linear, radial, elliptical or conical.
- **Shift** key aligns the path to an axis.
- **Ctrl** key reposition the gradient without affecting its length or direction. Use the **Shift** key additionally to constrain along an axis.
- Additional press of right-hand mouse button constrains the path.

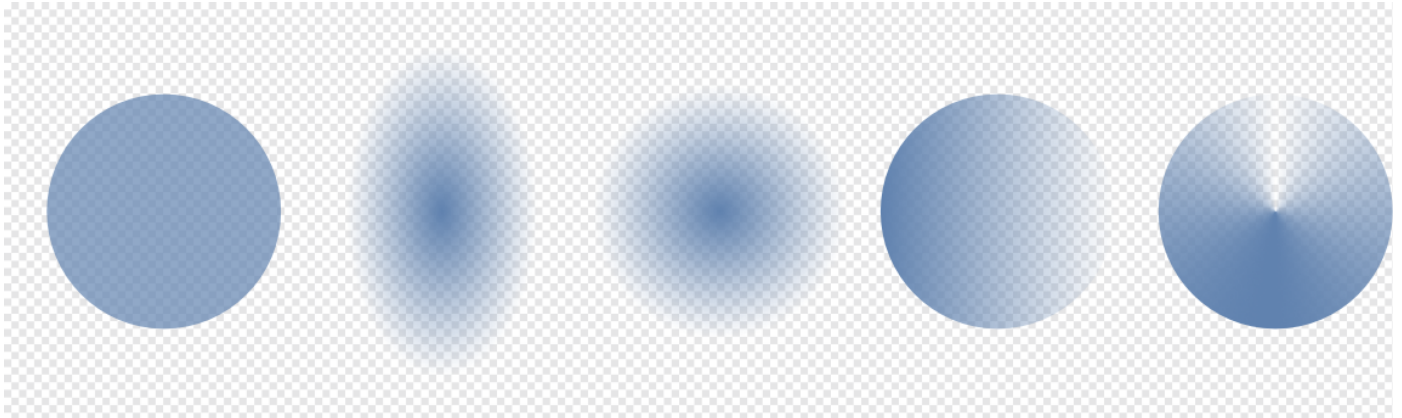
SEE ALSO:

[Selecting colors](#)

[Transparency](#)

Transparency

Transparency can be applied in lots of ways in Affinity Designer.



(From left to right) Solid, Elliptical, Radial, Linear and Conical transparency types applied to a basic shape.

Here are the typical methods for its use.

- As solid Opacity, applied to strokes, fills and brush strokes.
- As a transparency gradient, again applied to either stroke or fill. Using the same principles as gradient editing, you can introduce an independent gradient transparency path using the alpha channel in your design. You can introduce more than two alpha levels along the gradient path, adjust where each stop is positioned and/or control alpha transitions.
- As layer opacity.
- As a layer effect property.

Opacity is a term you'll see in Affinity Designer—this is the opposite of transparency. An object with 0% transparency is fully opaque (100% opacity), while 100% transparency means the object is invisible (0% opacity).

Opacity quick keys

You can use the numerical keys to set the layer opacity of a selected layer(s) or object(s).

This quick access to opacity settings also applies to brush tools in Pixel Persona.

▼ To change the solid opacity of an object:

1. From the **Color** panel, choose stroke or fill from the Stroke/Fill color selector.
2. Drag the **Opacity** slider.

▼ To apply a transparency gradient to an object:

1. From the **Tools** panel, select the **Transparency Tool**.
2. Drag across your object to apply a transparency gradient.

 As well as adding transparency gradients to objects, you can group those objects and then apply additional transparency to the group without affecting the individual objects' transparency.

▼ To apply layer opacity:

1. From the **Layers** panel, select a layer.

2. Click the panel's **Opacity** down arrow and drag the slider to adjust.

▼ To use opacity quick keys:

1. Do one of the following:
 - Select a single layer or object, or multiple layers or objects.
 - Select a brush tool in Pixel Persona.
2. Press a numerical key, or two numerical keys in quick succession, to set the opacity. For example:
 - Press **4** for 40% opacity.
 - Press **0** for 100% opacity.
 - Press **4** and **5** for 45% opacity.
 - Press **0** and **7** for 7% opacity.

▼ To apply layer effect opacity:

1. From the **Layers** panel, click **Layer Effects**.
2. From the dialog, adjust the **Opacity** slider if available. Not all layer effects have the Opacity setting.

SEE ALSO:

[Color panel](#)

[Transparency editing](#)

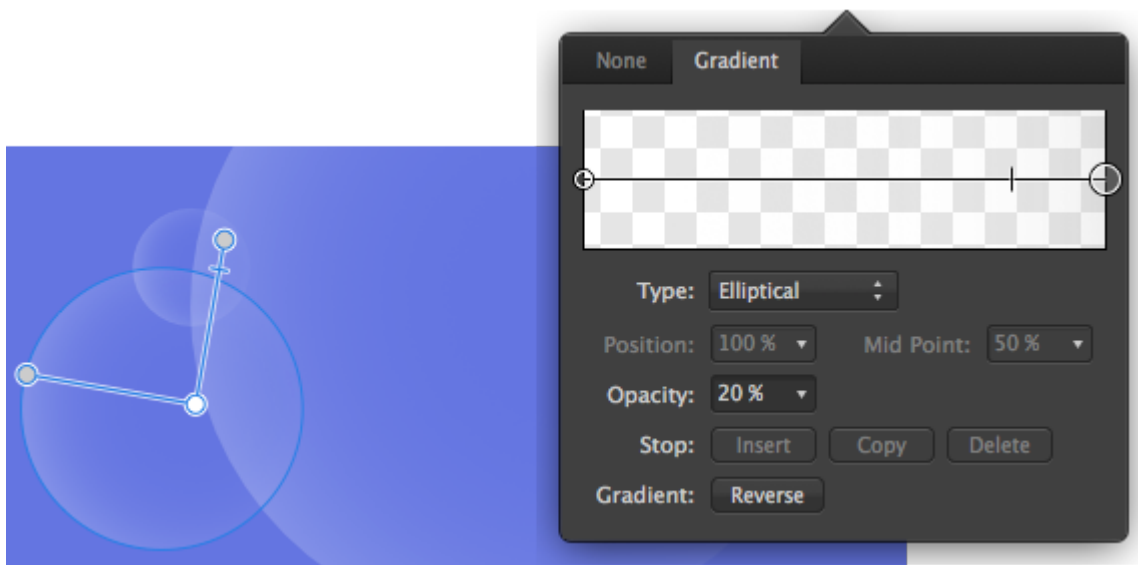
Transparency editing

Using the same principles as gradient editing, transparency editing lets you customize a gradient but just on the alpha channel in your design. This allows for more complex transparency gradients to be made, and then applied to object fills and strokes.

You can introduce more than two alpha levels along the gradient path, adjust where each stop is positioned and/or control alpha transitions. You can do this in two ways.

- Directly on the object.
- Via the tool's context toolbar.

Using the former, you modify the transparency gradient by eye; the latter lets you design with precision and absolute control.



Complex gradient applied directly on the object and then adjusted using the pop-up panel from the context toolbar.

Settings

The following settings can be adjusted in the dialog:

- **Type**—determines the gradient type used. Select from the pop-up menu.
- **Position**—controls the position of the stop along the gradient from left (0%) to right (100%), with 50% representing a central point.
- **Mid Point**—adjusts the alpha spread between the selected stop and the stop to its right.

- **Opacity**—controls how see-through the stop is. 100% represents fully opaque, 0% represents fully transparent.
- **Insert**—adds a new stop between the selected stop and the stop to its right. The stop adopts an alpha level at its new position.
- **Copy**—duplicates the selected stop, positioning it between the selected stop and the stop to its right.
- **Delete**—removes the selected stop from the gradient.
- **Reverse**—the gradient is reversed, i.e. like a mirror image.

▼ To modify the gradient (directly on an object):

- See the [Gradient editing](#) topic for the procedure but use the Transparency Tool instead of the Gradient Tool.

▼ To modify the gradient directly (via context toolbar):

- See the [Gradient editing](#) topic for the procedure but use the Transparency Tool instead of the Gradient Tool.

SEE ALSO:

[Transparency](#)

[Gradient editing](#)